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| 10/678,313 | 10/06/2003 | Hitoshi Tsuchiya | 116788 | 4129 |
| 25944 | 7590 | 07/01/2005 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | DUONG, TAI V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |
| DATE MAILED: 07/01/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,313

Applicant(s)

TSUCHIYA, HITOSHI

Examiner

Tai Duong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 O.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 16 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/06/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant's election with traverse of Species A (claims 2-4 and 13-15) in the reply filed on 04/06/05 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application could be made without serious burden. This is not found persuasive because the search and examination of four species would cause a serious burden on the examiner, not taking into account that new claims with newly recited features of the four species might be added later in subsequent amendments. Examination includes consideration of the prior art, determination of the compliance of the specification and the drawings with respect to the rules, the compliance of the claims with respect to 35 USC 112, first and second paragraphs, etc.

The requirement is still deemed proper and is therefore made FINAL.

Claims 7-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim.

Claims 5 and 6 (Species B) are examined with claims 2-4 and 13-15 (Species A) because the prior art discloses that Species A and B are obvious variants.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited feature "angles formed between phase-retarding axes of the liquid crystal films fixed in nematic or discotic hybrid alignment in the first elliptically polarizing plate and the second elliptically polarizing plate and an axis including the distinct viewing direction of the liquid crystal layer, being within a range from plus 30 degrees to minus 30 degrees" of

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claims 3 and 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-031717 (US equivalent Pub. No. US 2003/0164921, Uesaka et al) cited

by Applicant in view of WO 01/88574 (US equivalent Pub. No. US 2003/0218709, Ito et al). For the ease of discussing the references, the above US Publications are relied on in this rejection, instead of the JP 2002-031717 and WO 01/88574.

Uesaka et al disclose in Fig. 3 a liquid crystal display device, comprising: a liquid crystal cell including a liquid crystal layer held between an upper substrate and a lower substrate that oppose each other, and a semi-transparent reflective layer 5 provided on an inner side of the lower substrate, the inner side being adjacent to the liquid crystal layer; a first elliptically polarizing plate (1, 2, 3) to cause elliptically polarized light to enter the liquid crystal layer through the upper substrate; and a second elliptically polarizing plate (6, 7, 8) to cause elliptically polarized light to enter the liquid crystal layer through the lower substrate. Uesaka et al disclose that the second elliptically polarizing plate comprises a polarizer 8, a stretched film 6 and a liquid crystal film 7 fixed in hybrid alignment (paragraphs 0061-0068) and the liquid crystal film can be nematic or discotic (paragraph 0024). It is noted that a circular polarizer is an elliptical polarizer with the two orthogonal component waves having 90 degree phase difference and equal magnitude. Thus, the only difference between Uesaka's device and that of the instant claims is the first elliptically polarizing plate also having a liquid crystal film fixed in hybrid alignment. Ito et al disclose in Figs. 6 and 7 two elliptically polarizing plates (131A-134A, 131B-134B) each having a liquid crystal film (131A, 131B) fixed in hybrid alignment (paragraphs 0431-0437 and 0450). Thus, it would have been obvious to a person of ordinary skill in the art in view of Ito et al to employ in Uesaka's device each of the first elliptically polarizing plate and the second elliptically polarizing plate

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having a liquid crystal film fixed in hybrid alignment for improving further the viewing angle of the display due to the accurate compensation of the liquid crystal film, as compared with the stretched film.


Claims 3, 4, 6 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 and 6 are allowable over the prior art of record because none of the prior art discloses or suggests a LCD device having the structure as recited in claim 2 or 5 *in combination* with the feature "angles formed between phase-advancing axes of the liquid crystal films fixed in nematic or discotic hybrid alignment in the first elliptically polarizing plate and the second elliptically polarizing plate and an axis including the distinct viewing direction of the liquid crystal layer, being within a range from plus 30 degrees to minus 30 degrees". Claims 4 and 13-15 are also allowable since they depend on the allowed claim 4.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

TD
06/05


DUNG T. NGUYEN
PRIMARY EXAMINER